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BLACKWELL, JAMES H				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/665,794

Applicant(s)

SHIRAIISHI ET AL.

Examiner

James H. Blackwell

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 14-23 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-7 and 14-23 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

This Office Action is in response to an amendment filed 12/16/2008.

Claims 1-7, and 14-23 remain pending.

Claims 1-3 and 20 are independent claims.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the recited "*service list acquisition unit*," "*interface information acquisition unit*," "*linking information making unit*" and "*management unit*" of Claim 1. The Specification does not describe what a "*unit*" is. Is it hardware, software, or a combination of hardware and software? Thus, there is no support or antecedent basis for the recited "*units*" that allows the meaning of the term to be ascertained, as required in 37 CFR 1.75(d)(1).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 4-7, 14 and 17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 1 recites a device comprising a "*service list acquisition unit*," an "*interface information acquisition unit*," a "*linking information making unit*," and a "*management unit*." There is no clear indication

in the Specification as to whether these "units" comprise hardware, software, or a combination. However, after reading the disclosure of the present invention, one of ordinary skill in the art (e.g., a computer programmer who writes code for extensible, electronic workflow systems) would interpret the recited "units" as being computer software modules (i.e., software units *per se*). Software *per se* is nonstatutory.

Claims 4-7, 14 and 17 shed no further light on what the recited "units" comprise.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7, 17-20, and 22-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Robles et al. (hereinafter Robles, U.S. Patent Application Publication No. 2002/0198904 filed 06/22/2001, published 12/26/2002).

In regard to independent Claim 1, Robles discloses:

Note: For purposes of examination, the phrase "*linking information making device*" is a device for generating workflows. The workflows combine information obtained by a "*service list acquisition unit*," and a "*interface information acquisition unit*," and are assembled or "linked together" by a "*linking information making unit*," where information

obtained by both the “*service list acquisition unit*” and “*interface information acquisition unit*” are presented in a user interface and are subject to user interaction to create or generate a workflow.

- *A linking information making device* (at least Abstract → Robles describes a distributed document production system that allows a user to generate or produce a document using any number of available services available on any number of available devices), *comprising*:
 - *a service list acquisition unit which acquires a service list expressing respective services which execute predetermined processings of document data, the respective services being provided by service processing devices* (at least Page 3, Paragraphs [0028], [0031-0035] → Robles describes a services engine (i.e. *unit*) that can retrieve information on available services directly from production devices using SNMP (Simple Network Management Protocol). The information includes the particular services, and options for those services. Robles also implies that instructions for generating user accessible controls pertaining to each device as well as the name or other location identifier of each device capable of providing the services may be included in this information obtained directly from the device(s). This interpretation is based on what is optionally contained in a services database and the notion that the services engine can either obtain this information from the database or directly from the device(s)).

- *an interface information acquisition unit which acquires from the respective service processing devices pieces of interface information corresponding to the respective service processing devices (at least Page 3, Paragraph [0028] → as noted above, Robles implies that instructions for generating user accessible controls (e.g., a GUI, which would presumably contain interface information since the GUI is controlling the device) pertaining to each device, as well as the name or other location identifier of each device capable of providing the services, may be included in this information obtained directly from the device(s)).*

Note: For purposes of examination, the phrase “*predetermined processing(s)*” describes predefined services that each device is capable of performing.

- *the interface information including a method by which the predetermined processing is started (at least Page 4, Paragraph [0039]; Figures 10-13 → a print command can be issued (e.g. a method by which the predetermined processing is started), which acts to start the predetermined processing).*
- *a linking information making unit which makes linking information to be used for linking the predetermined processings based on the interface information which has been acquired by the interface information acquisition unit, and transmits the linking information (at least Figure 12A → Robles provides a user interface through which various services are*

listed (item 106) and can be selected and options set for each service by a user. Selected services and options are viewable by the user (item 108). Multiple services can be assembled (see Figures 12D-F) into a list of instructions (the beginnings of a workflow). At this point, the user can choose to "link" these instructions by selecting the Preview button (item 112). Selecting the "ok" button (item 114) takes this assembled list of instructions to the next step (see Figure 13) where the system determines what devices can carry out the instructions. It is presumed that by selecting the "ok" button (item 114) that the user invokes the start of a linking process that will end with the creation of a workflow. By selecting the "ok" button (item 156) associated with this user interface, the user presumably adds the additionally selected content to the existing list and the process of "linking" the instructions and the devices together into a workflow is completed. The resulting workflow is then transmitted to the previously selected device(s) to be executed)),

- *the linking information including information to be displayed on a screen of a one or more service processing devices and to be selected by a user operating the screen when the user instructs to start linking the predetermined processings (as described above, Robles provides a user interface that displays services, options for services, and devices for which those services/options can be*

carried out and that can be selected by a user) to generate a workflow that is then submitted to the device(s) for processing.

Thus, Robles provides a user interface whereby a user can cause the linking of services, options for each of the services, and devices capable of carrying out the services to take place.

- *a management unit which stores the transmitted linking information and further transmits the stored linking information to the one or more service processing devices for displaying on the screen based on a request from the service processing devices (at least Figure 14 → Robles depicts a production manager that allows the user to obtain the status of devices carrying out their assigned processing(s) on selected documents. The user can interact with this interface).*

Regarding independent Claims 2 and 3, Claims 2 and 3 merely recite a method, and program on a recording medium operable (executable) on the device of Claim 1. Thus, Robles discloses every limitation of Claims 2 and 3, as indicated in the above rejection of Claim 1.

In regard to dependent Claim 4, Robles discloses:

- *A document processing system, comprising:*
 - *the linking information making device according to claim 1 which acquires the service list transmitted from a search device and the pieces of the*

interface information from the service processing devices via the search device; and (at least Page 3, Paragraph [0028] → describes a services engine (a search device) that obtains information from service devices directly, and is further capable of periodically updating that information), further comprising:

- *a plurality of service processing devices which provide services for executing predetermined processings of document data and transmit the pieces of the interface information to the search device (at least Page 3, Paragraph [0028]; Figure 8 → Figure 8 depicts a plurality of production devices capable of providing services and transmitting services/capabilities to the services engine upon request).*
- *the search device provided with:*
 - *a service information storage unit for storing the pieces of the interface information which have been transmitted from currently-available service processing devices (at least Page 3, Paragraph [0028] → a services database is available to provide electronic storage to device services/options available on a network or elsewhere).*
 - *a search unit for searching services corresponding to services, for which search has been requested, using the pieces of the interface information which have been stored in the service information*

storage unit (at least Page 3, Paragraph [0028] → describes a services engine that retrieves (after locating) information on services directly, or alternatively obtains the information from the services database), and

- *a transmission unit which transmits the service list based on the search results of the search unit* (at least Page 3, Paragraph [0031] → a device selector 60 queries services database 38 or devices 16 directly and identifies a device or devices 16 capable of providing the selected services. In other words, the devices are “searched” for, identified, and their available services, options, interface information is transmitted back to the system such that the interface generator 43, can generate a user interface with user accessible controls for selecting between the identified device or devices).

In regard to dependent Claim 5, Robles discloses:

- *the transmission unit of the search device transmit the service list ..., to the linking information making device* (at least Page 3, Paragraph [0032] → Plan generator 68 is responsible for merging formatted production request 44 with selected services 46, as illustrated in Figure 3 under the control of a user who starts the process. Device drivers 70 translate the production plan 44 into a specialized set of commands for each selected production device 16 handling

production plan 44. Linking in the system of Robles is at least begun by a user interacting with the system.

In regard to dependent Claim 6, Robles discloses:

- *the service processing devices transmit pieces of input information and pieces of output information on services, service names, and service information location as the interface information (at least Pgs. 2-3, Paragraphs [0027-0028], [0031] → service devices via SNMP transmit, at least upon request, information on their services as well as interface information, their location, and identification).*

In regard to dependent Claim 7, Robles discloses:

- *interface information acquisition unit of the linking information making device acquires pieces of service information location for accessing the respective service processing devices, from the search device, and acquires pieces of interface information from the service processing devices based on pieces of the acquired service information location (at least Page 3, Paragraphs [0028], [0031] → the services engine includes a services locator 58, device selector 60. The services locator obtains services and interface information from each of the devices either via database or directly).*

In regard to dependent Claim 17, Robles discloses:

- *the management unit stores a plurality of the linking information as a plurality of workflows* (at least Page 5, Paragraph [0045]; Figure 14 → Robles provides a user interface which lists a plurality of linking information as production plans (i.e. workflows) that a user can interact with. These workflows are queued and hence are stored by the system, at least temporarily).

Regarding independent Claims 18 and 19, Claims 18 and 19 merely recite a method, and program on a recording medium operable (executable) on the device of Claim 17. Thus, Robles discloses every limitation of Claims 18 and 19, as indicated in the above rejection of Claim 17.

In regard to independent Claim 20, Robles discloses:

Note: For purposes of examination, the phrase *"linking information making device"* is a device for generating workflows. The workflows combine information obtained by a *"service list acquisition unit,"* and a *"interface information acquisition unit,"* and are assembled or "linked together" by a *"linking information making unit,"* where information obtained by both the *"service list acquisition unit"* and *"interface information acquisition unit"* are presented in a user interface and are subject to user interaction to create or generate a workflow.

- *A computer-readable recording medium that stores a program for controlling a computer to execute a processing for making linking information (at least Abstract → Robles describes a distributed document production system that allows a user to generate or produce a document using any number of available services available on any number of available devices), the program including instructions for controlling the computer to execute:*
 - *acquiring, from service processing devices through a network, pieces of service information expressing different types of processings executed by the service processing devices on document data (at least Page 3, Paragraphs [0028], [0031-0035] → Robles describes a services engine (i.e. unit) that can retrieve information on available services directly from production devices using SNMP (Simple Network Management Protocol). The information includes the particular services and options for those services. Robles also implies that instructions for generating user accessible controls pertaining to each device as well as the name or other location identifier of each device capable of providing the services may be included in this information obtained directly from the device(s). This interpretation is based on what is optionally contained in a services database and the notion that the services engine can either obtain this information from the database or directly from the device(s));*

- *displaying the pieces of service information on a display (at least Page 4, Paragraph [0039]; Figure 10 → as shown in the figure, device services information is displayed to the user for selection);*
- *making linking information that links the processings to be executed by the service processing devices as a workflow based on a user operation on the display (at least Figure 12A → Robles provides a user interface through which various services are listed (item 106) and can be selected and options set for each service by a user. Selected services and options are viewable by the user (item 108). Multiple services can be assembled (see Figures 12D-F) into a list of instructions. At this point, the user can choose to "link" these instructions by selecting the Preview button (item 112). Selecting the "ok" button (item 114) takes this assembled list of instructions to the next step (see Figure 13) where the system determines what devices can carry out the instructions. It is presumed that by selecting the "ok" button (item 114) that the user invokes the start of a linking process that will end with the creation of a workflow. By selecting the "ok" button (item 156) associated with this user interface, the user presumably adds the additionally selected content to the existing list and the process of "linking" the instructions and the devices together into a workflow is completed. The resulting workflow is then transmitted to the previously selected device(s) to be executed));*

- *storing a plurality of pieces of the linking information as a plurality of workflows in a storage unit* (at least Page 3, Paragraph [0035] → Robles provides a cache for storing at least a list of preferred devices; Page 4, Paragraph [0038] → describes various computer storage mediums onto which the system of Robles can be embodied; Page 5, Paragraph [0045] → describes queues into which production plans (i.e. *workflows*) may be at least temporarily stored and allows a user to re-direct failed productions to other devices, which would require that the plan be retained);
- *transmitting, in response to a requirement from one of the service processing devices, the plurality of pieces of the stored linking information through the network to the one of the service processing devices so that a list of the plurality of workflows are displayed on a screen of the one of the service processing devices for a user selection, wherein one of the workflows is started based on the user selection* (at least Page 5, Paragraph [0045]; Figure 14 → Robles provides a means by which submitted (i.e. *transmitted*) production plans (i.e. *workflows*) can be displayed to a user and with which a user can interact to pause (e.g. stop/start), delete or re-direct. The first and third options act to start/re-start the selected plan(s)).

In regard to dependent Claim 22, Robles discloses:

- *the transmitting comprises transmitting the plurality of pieces of the linking information in response to a request from one or more of the service processing devices* (at least Page 5, Paragraph [0045]; Figure 14 → Robles provides a means by which submitted (i.e. *transmitted*) production plans (i.e. workflows) can be displayed to a user and with which a user can interact to pause (e.g. stop/start), delete or re-direct. The first and third options act to start/re-start the selected plan(s)).

In regard to dependent Claim 23, Robles discloses:

- *the service information includes a service list* (Page 3, Paragraphs [0028], [0031-0035] → a services engine can retrieve information on available services directly from production devices using SNMP (Simple Network Management Protocol). The information includes the particular services and options for those services. Robles also implies that instructions for generating user accessible controls pertaining to each device as well as the name or other location identifier of each device capable of providing the services may be included in this information obtained directly from the device(s). This interpretation is based on what is optionally contained in a services database and the notion that the services engine can either obtain this information from the database or directly from the device(s)).

- *pieces of interface information corresponding to the respective service processing devices* (Page 3, Paragraph [0028] → as noted above, Robles implies that instructions for generating user accessible controls (e.g., a GUI, which would presumably contain interface information since the GUI is controlling the device) pertaining to each device as well as the name or other location identifier of each device capable of providing the services may be included in this information obtained directly from the device(s)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14-16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robles in view of Roche (U.S. Patent Application Publication No. 2004/0039647 filed 07/18/2001, Published 02/26/2004).

In regard to dependent Claim 14, Robles fails to disclose:

- *the linking information is a file in an XML format.*

However, Roche discloses *the linking information is a file in an XML format* (Figures 14-18 → Figure 14 depicts an XML-based Work Order containing, in addition to other information such as what to print and where, how to print (1402). This is further described in Figure 17 and represents the parameters needed by a

device (and presumably obtained by the system from the device) embodied in an XML format).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the disclosures of Robles and Roche since all both inventions are related to facilitating the printing of content to devices. Adding the disclosure of Roche provides the benefit of using the implicit structure of XML to describe aspects of the overall print job.

Regarding dependent Claims 15, 16 and 21, Claims 15, 16 and 21 merely recite a method, and programs on recording mediums operable (executable) on the device of Claim 14. Thus, Robles in view of Roche discloses every limitation of Claims 15, 16 and 21, as indicated in the above rejection of Claim 14.

Response to Arguments

In regard to the 101 Rejections, Applicant argues that the claims are statutory because the examiner's interpretation of the term "*unit*" is pure speculation and that one of ordinary skill in the art would have understood the term "*unit*" as something that includes hardware. See *Response* -- Page 8, last paragraph.

The examiner disagrees.

In the examiner's opinion, the examiner's interpretation of the recited term "*unit*" is proper.

If Applicant truly believes that the examiner's interpretation of the term "*unit*" is pure speculation, then Applicant should -- and the examiner encourages -- appeal to the USPTO Board of Patent Appeals and Interferences. Arguing the 101 rejections without amending the claims is a waste of Applicant's time and money, and USPTO resources.

Again, if Applicant believes that the examiner is wrong, then the examiner **encourages** Applicant to appeal to BPAl. Otherwise, Applicant must amend the claims to obviate the 101 rejections.

Applicants argue that the prior art combination of Robles in view of Hansen fails to disclose the following limitations recited in the independent claims (below is from Claim 1):

"... the linking information including information to be displayed on a screen of one or more service processing devices and to be selected by a user operating the screen when the user instructs to start linking the predetermined processings..."

and

"a management unit which stores the transmitted linking information and further transmits the stored linking information to the one or more service processing devices for displaying on the screen based on a request from the service processing devices."

Arguments with respect to Hansen are moot as a new rejection has been made.

In a previous rejection mailed 12/12/2007, the Examiner rejected claims 1-7 (1-3 were independent claims) as being anticipated by Robles. In response, Applicants argued that Robles failed to disclose essentially the above limitations. The Examiner withdrew the rejection and made a new rejection in view using the prior art of Robles in view of Hansen.

Upon extensive further review and consideration of the Specification, drawings, claims, previous arguments and the prior art, the Examiner believes that Robles discloses each and every limitation recited in the claims including the limitations recited above.

Robles describes an interface and system that provides to a user a list of available services (with configurable options) as well as a list of devices that are available on the system for carrying out those services. In the selection of services/options and devices, the user generates a list. When finished, the user at least begins the process of "linking" those services/options and devices together into a workflow that is then executed. Once execution has begun, the system further provides

the user with an interface that allows them to monitor the progress of, as well as interact with, executing workflows.

With regard to the first limitation, “... *the linking information including information to be displayed on a screen of one or more service processing devices and to be selected by a user operating the screen when the user instructs to start linking the predetermined processings...*”. To the extent that the Examiner can determine based on the Applicants specification and drawings, he believes that Robles describes the notion of “linking information” as that of a workflow and a “linking information making device” as a device for creating/generating a workflow.

Robles further describes a “management unit” as a user interface that allows a user to interact and/or monitor the progress of workflows that have been previously submitted and that may need to be paused, deleted, stopped, re-started, or re-assigned.

With this interpretation, the Examiner believes that the prior art of Hansen is not needed and respectfully disagrees with the Applicants that Robles fails to disclose all of the limitations of the recited claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James H. Blackwell whose telephone number is (571)272-4089. The examiner can normally be reached on 8-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached on 571-272-4137. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James H. Blackwell/
03/12/2009

/DOUG HUTTON/
Supervisory Patent Examiner, Art Unit 2176